



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,876	02/17/2005	Toshihiro Tsumura	70456-074	2971
20277 7590 05/16/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				
EXAMINER				
FUREMAN, JARED				
ART UNIT		PAPER NUMBER		
2876				
MAIL DATE		DELIVERY MODE		
05/16/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,876

Applicant(s)

TSUMURA, TOSHIHIRO

Examiner

Jared J. Fureman

Art Unit

2876

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-27 is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Receipt is acknowledged of the amendment filed on 02/27/200, which has been entered in the file. Claims 1, 3-8 and 10-27 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-8 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Galvin et al (US 4,544,836, cited by applicant).

Galvin teaches:

(Re claim 1) An information display apparatus (card 10, figures 1 and 2) comprising:

a reflecting plate (reflector 26, figure 2) having a main surface; and

a plurality of polarizing plates (strips 30 and 32, figure 2; or elements 52 and 54, figure 4) arranged on at least a part of a plurality of areas defined with a predetermined interval and width on said main surface, each having an axis of polarization equal to any of a plurality of different directions (see column 5, lines 10-13 and 54-63);

wherein a code is optically transmitted by light beams reflected from areas of said main surface on which said plurality of polarizing plates are arranged and areas of said main surface on which said polarization plates are not arranged (see figures 6A-8, 11 and 12), and

said reflecting plate (reflector 26, figure 2) is a retroreflecting plate (see column 5, lines 29-31) (also see figures 1, 2, 4, 6A-8, 11, 12; column 2, lines 15-35; column 3, lines 24-47; column 5, line 6 - column 6, line 13; column 6, line 48 - column 7, line 13; column 7, line 27 - column 8, line 5).

(Re claim 3) The information display apparatus according to claim 1, further comprising a transparent cover member (infrared transmissive cover sheet 22, figures 1 and 2, column 5, lines 22-28, is transparent to infrared light) having a color of similar hue to said polarizing plates provided to cover said main surface and said plurality of polarizing plates.

(Re claim 4) The information display apparatus according to claim 1, further comprising a light shielding plate (infrared transmissive cover sheet 22, figures 1 and 2, column 5, lines 22-28, shields the plurality of areas from visible light) arranged on at least a part of said plurality of areas.

(Re claim 5) The information display apparatus according to claim 4, wherein a surface of said light shielding plate has a color of similar hue to said polarizing plates (figures 1 and 2, column 5, lines 22-28).

(Re claim 6) The information display apparatus according to claim 1, further comprising a plurality of partition members (the apertures 34 and 36 in strips 30 and 32, see figure

2, server as partition members) provided on said main surface of said reflecting plate at a predetermined interval to define said plurality of areas.

(Re claim 7) The information display apparatus according to claim 6, wherein each of said plurality of polarizing plates (the material of strips 30 and 32 between the apertures 34 and 36, see figure 2) is detachably mounted on said plurality of areas partitioned by said plurality of partition members (the portions of the strips 30 and 32 between the apertures 34 and 36 are detachable by tearing or cutting, for example).

(Re claim 8) An information display apparatus comprising:

- a reflecting plate having a main surface (reflector 26, figure 2);

- a plurality of polarizing plates (strips 30 and 32, figure 2; or elements 52 and 54, figure 4) arranged on at least a part of a plurality of areas defined with a predetermined interval and width on said main surface, each having an axis of polarization equal to any of a plurality of different directions (see column 5, lines 10-13 and 54-63); and

- a light shielding plate (infrared transmissive cover sheet 22, figures 1 and 2, column 5, lines 22-28, shields the plurality of areas from visible light) having a color of similar hue to said polarizing plates, provided in any of said plurality of areas where said polarizing plates are not provided (the transmissive cover sheet 22 covers any areas where polarizing plates are not provided, see figures 1 and 2);

wherein a code is optically transmitted by light beams reflected from areas of said main surface on which said plurality of polarizing plates are provided (see figures 6A-8, 11 and 12), and

said reflecting plate (reflector 26, figure 2) is a retroreflecting plate (see column 5, lines 29-31) (also see figures 1, 2, 4, 6A-8, 11, 12; column 2, lines 15-35; column 3, lines 24-47; column 5, line 6 - column 6, line 13; column 6, line 48 - column 7, line 13; column 7, line 27 - column 8, line 5).

(Re claim 10) The information display apparatus according to claim 8, further comprising a plurality of partition members (the apertures 34 and 36 in strips 30 and 32, see figure 2, server as partition members) provided on said main surface of said reflecting plate at a predetermined interval to define said plurality of areas.

(Re claim 11) The information display apparatus according to claim 10, wherein each of said plurality of polarizing plates and said light shielding plate is detachably mounted on said plurality of areas partitioned by said plurality of partition members (the portions of the strips 30 and 32 between the apertures 34 and 36, and the infrared transmissive cover sheet 22, are detachable by tearing or cutting, for example).

(Re claim 12) The information display apparatus according to claim 4, further comprising a transparent cover member (the infrared transmissive sheet 22 is transparent to infrared light, see figures 1 and 2) having a color of similar hue to said

polarizing plates, provided to cover said plurality of polarizing plates and said light shielding plate.

Allowable Subject Matter

3. Claims 13-27 have been allowed over the prior art of record.
4. The following is an examiner's statement of reasons for allowance: The prior art of record, taken alone or in combination, fails to teach or fairly suggest: (re claim 13) an optical information reading apparatus comprising first determining means responsive to said series of valid signal sequence for determining a method of decoding a signal sequence included in outputs from said plurality of photo sensors and means for decoding the signal sequence included in the outputs from said plurality of photo sensors by said determined method of decoding; in combination with the other limitations as recited in claim 13.
5. Galvin et al teaches an optical information reader (see figure 8) for reading the card 10, including detectors 150 and 152, polarizers 154 and 156 covering the detectors 150 and 152. However, Galvin et al fails to teach the first determining means and the means for decoding recited in Applicant's claim 13. It appears as though Galvin et al has no need to determine a method of decoding, since only a single method of decoding is used.
6. Without the benefit of Applicant's teachings, there is no motivation for one of ordinary skill in the art at the time of the invention to combine the various teachings of the prior art in a manner so as to create the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments filed 02/27/2008 have been fully considered but they are not persuasive.

Applicants argue that Galvin's backing reflector 26 is not a retroreflecting plate (see page 13 of the amendment filed on 02/27/2008), the Examiner respectfully disagrees. Figure 2 of Galvin shows a card 10 including a reflector 26 (see figure 2 and column 5, lines 29-35). This represents a card used in a reflective mode of the invention, where the card can be read from one side. Figure 6A of Galvin further illustrates the reflective embodiment. In this figure, the reflector is now labeled 82 (see figure 6A and column 6, line 48 - column 7, line 13). As shown in figure 6A, the card is illuminated with non-polarized light and the card reflects light that is polarized at either +45 degrees or -45 degrees. Figure 6A clearly shows that the polarized light is returned in the same direction as the non-polarized light. Thus, the reflector can be considered retroreflective, since the reflector returns at least part of the incident light back in the incident direction. Therefore, Galvin teaches/suggests the claimed invention.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared J. Fureman whose telephone number is (571) 272-2391. The examiner can normally be reached on 8:00 am - 5:30 PM M-T, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jared J. Fureman/
Primary Examiner, Art Unit 2876

May 13, 2008